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ART UNIT		PAPER NUMBER		
1791				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/552,470

Applicant(s)

BARTOLI ET AL.

Examiner

KIMBERLY K. MCCLELLAND

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI-108)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Newly submitted claim 15 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 15 is drawn to a separate embodiment from claims 1-11 and 13-14. Claim 15 recites patterning by screen printing, while claims 1-11 and 13-14 recite patterning by printing non-etchable portions followed by submersion in an etching bath. See, for example, Examples 1-2, versus Examples 3-4. The species are independent or distinct because claims to the different species recite the mutually exclusive characteristics of such species. In addition, these species are not obvious variants of each other based on the current record.
2. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 15 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Information Disclosure Statement

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a

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separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 14 and 8-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There does not appear to be support in the current specification for a heat transfer printing film. The present invention discloses a polypropylene (i.e. Decotrans film), but does not provide adequate support for a heat transfer printing film. Claims 8-11 are rejected due to their dependency on independent claim 14.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 9-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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8. Claim 9 recites the limitation "the resin" in line 2. There is insufficient antecedent basis for this limitation in the claim. It is unclear if the resin refers to the non-etchable resin or the two-component polyurethane resin. Claims 10-11 are rejected due to their dependency on dependent claim 9.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,416,856 to Crandall in view of U.S. Patent No. 5,620,775 to LaPerre, U.S. Patent No. 5,514,441 to Pohto et al., U.S. Patent No. 6,416,188 to Shusta et al., and U.S. Patent No. 5,620,613 to Olsen.

11. With respect to claim 1, Crandall discloses a method of making a retroreflective article, including providing a carrier sheet with an adhesive on the carrier (column 7, lines 33-38); partially embedding onto the adhesive a monolayer of transparent glass microspheres having a refractive index between about 1.4 and about 2.7 (column 6, lines 1-3); coating a thin layer of a two-component polyurethane resin (column 3, lines 29-44); applying a specularly reflective mirror of aluminum by vacuum deposition (column 6, lines 10-35); applying two layers of dielectric mirror (column 6, lines 36-67); coating a polyurethane binder layer and laminate with a textile base (column 7, line 65-

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column 8, line 13); stripping away the support layer (column 7, lines 61-63). However, Crandall does not disclose embedding onto the adhesive a monolayer of transparent glass microspheres to a depth averaging around 35-40 percent of their average diameters; coating the polyurethane layer onto the unembedded glass microspheres; applying the specularly reflective aluminum over the polyurethane resin; printing a non-etchable pattern onto the aluminum layer; passing said web material through a demetallization bath of sodium hydroxide and a washing station to remove etchable, non-protected surface and drying the web; or applying, by a vacuum process, two layers of dielectric mirror.

12. LaPerre discloses a method of making a glass sphere coated article, including embedding onto the adhesive a monolayer of transparent glass microspheres to a depth averaging around 35-40 percent of their average diameters (column 4, lines 21-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the range of embedding depths taught by LaPerre in the method of making a retroreflective article disclosed by Crandall. The motivation would have been to enhance the desired texture and appearance to the resulting article (column 3, lines 38-50).

13. Pohto et al. discloses a method of making retroreflective sheeting, including applying the specularly reflective aluminum(14) over the polyurethane resin (13; See Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to applying the polyurethane resin prior to depositing the aluminum layer as taught by Pohto et al. in the method of making a retroreflective article disclosed

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by Crandall. The motivation would have been to provide the desired focal length between the beads and the reflective surface (column 1, lines 38-40). This teaching would require the polyurethane resin layer to be coated onto the unembedded microspheres, and the aluminum layer to be deposited on the polyurethane layer to form the retroreflective article.

14. Shusta et al. discloses a method of making retroreflective appliques, including it is known in the art to apply by a vacuum process, two layers of dielectric mirror (column 5, lines 54-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the dielectric mirror coatings of Crandall using the vacuum process taught by Shusta et al. The motivation would have been to create uniform even coatings.

15. Olsen discloses a method of making a transfer sheet, including printing a non-etchable pattern onto the aluminum layer, passing said web material through a demetallization bath of sodium hydroxide and a washing station to remove etchable, non-protected surface and drying the web (column 11, lines 8-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the binding and etching steps taught by Olsen with the method of making a retroreflective article disclosed by Crandall. The motivation would have been to form graphic segments in the retroreflective article, creating a decorative pattern (column 3, lines 32-38).

16. As to claim 2, Crandall discloses the carrier sheet has a heat-softenable adhesive layer on the carrier (column 7, lines 24-28).

17. As to claim 3, Crandall discloses an auto-adhesive layer on a carrier sheet (column 7, lines 24-28). However Crandall does not disclose the carrier sheet is an auto-adhesive layer supported by a polymer backing.

18. LaPerre discloses a method of making a glass microsphere coated article, including it is known in the art that polymeric films are functional equivalents to paper backings (column 8, lines 34-43). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the art-recognized equivalent polymer film taught by LaPerre for the paper backing in the method of making a retroreflective article disclosed by Crandall.

19. As to claim 6, Crandall discloses the polyurethane resin used for coating the glass web is a water-dispersion and the curing agent is an aliphatic poly-isocyanate (column 4, lines 33-35).

20. Claims 14 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,416,856 to Crandall in view of U.S. Patent No. 5,620,775 to LaPerre, U.S. Patent No. 5,514,441 to Pohto et al., U.S. Patent No. 3,432,376 to Reed et al., U.S. Patent No. 5,277,009 to Sunakawa et al., and U.S. Patent No. 6,416,188 to Shusta et al.,

21. With respect to claim 14, Crandall discloses a method of making a retroreflective article, including providing a carrier sheet with an adhesive on the carrier (column 7, lines 33-38); partially embedding onto the adhesive a monolayer of transparent glass microspheres having a refractive index between about 1.4 and about 2.7 (column 6,

lines 1-3); coating a thin layer of a two-component polyurethane resin (column 3, lines 29-44); applying a specularly reflective mirror of aluminum by vacuum deposition (column 6, lines 10-35); applying two layers of dielectric mirror (column 6, lines 36-67); coating a polyurethane binder layer and laminate with a textile base (column 7, line 65-column 8, line 13); stripping away the support layer (column 7, lines 61-63). However, Crandall does not disclose embedding onto the adhesive a monolayer of transparent glass microspheres to a depth averaging around 35-40 percent of their average diameters; coating the polyurethane layer onto the unembedded glass microspheres; applying the specularly reflective aluminum over the polyurethane resin; printing a non-etchable pattern onto the aluminum layer using a heat transfer printing film; passing said web through a demetallization bath of sodium hydroxide; or applying, by a vacuum process, two layers of dielectric mirror.

22. LaPerre discloses a method of making a glass microsphere coated article, including embedding onto the adhesive a monolayer of transparent glass microspheres to a depth averaging around 35-40 percent of their average diameters (column 4, lines 21-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the range of embedding depths taught by LaPerre in the method of making a retroreflective article disclosed by Crandall. The motivation would have been to enhance the desired texture and appearance to the resulting article (column 3, lines 38-50).

23. Pohto et al. discloses a method of making retroreflective sheeting, including applying the specularly reflective aluminum (14) over the polyurethane resin (13; See

Figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to applying the polyurethane resin prior to depositing the aluminum layer as taught by Pohto et al. in the method of making a retroreflective article disclosed by Crandall. The motivation would have been to provide the desired focal length between the beads and the reflective surface (column 1, lines 38-40). This teaching would require the polyurethane resin layer to be coated onto the unembedded microspheres, and the aluminum layer to be deposited on the polyurethane layer to form the retroreflective article.

24. Reed et al. discloses a process for using transfer sheets, including printing a non-etchable pattern onto the metal layer using a heat transfer printing film (i.e. polypropylene; column 5, lines 14-40, column 9, lines 41-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the transfer mask of Reed et al. with the aluminum layer in the reflective article of Crandall. The motivation would have been to provide a selective demetallization mask which produces decorative effects in the article.

25. Sunakawa et al. discloses a method of producing a metal product, including passing said masked metal web through a demetallization bath of sodium hydroxide (column 4, lines 23-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the demetallization bath taught by Sunakawa et al. with the aluminum layer in the reflective article of Crandall. The motivation would have been to allow for even etching on exposed aluminum portions.

26. Shusta et al. discloses a method of making retroreflective appliqué, including it is known in the art to apply by a vacuum process, two layers of dielectric mirror (column 5, lines 54-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the dielectric mirror coatings of Crandall using the vacuum process taught by Shusta et al. The motivation would have been to create uniform even coatings.

27. As to claim 8, Crandall does not disclose the transfer image used for printing the coated microspheres is made with a non-etchable resin.

28. Reed et al. discloses a process for using transfer sheets, the transfer image used for printing the coated microspheres is made with a non-etchable resin (column 9, lines 41-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the transfer mask of Reed et al. with the aluminum layer in the reflective article of Crandall. The motivation would have been to provide a selective demetallization mask which produces decorative effects in the article.

29. As to claim 9, Crandall does not disclose the thermoplastic resin used for the printed base is a polyurethane, a polyamide or a polyacrylic polymer.

30. Reed et al. discloses a process for using transfer sheets, including the thermoplastic resin used for the printed base is a polyurethane, a polyamide or a polyacrylic polymer (i.e. urethane/acrylic polymer; column 5, lines 45-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the transfer mask of Reed et al. with the aluminum layer in the reflective article

of Crandall. The motivation would have been to provide a selective demetallization mask which produces decorative effects in the article.

31. As to claim 10, Crandall does not disclose the resin is supported on a base which is a release paper, a polypropylene or polyester foil.

32. Reed et al. discloses a process for using transfer sheets, including the resin is supported on a base which is a release paper, a polypropylene or polyester foil (i.e. polypropylene; column 5, lines 14-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the transfer mask of Reed et al. with the aluminum layer in the reflective article of Crandall. The motivation would have been to provide a selective demetallization mask which produces decorative effects in the article.

33. As to claim 11, Crandall does not disclose the base a polypropylene printed film.

34. Reed et al. discloses a process for using transfer sheets, including the base a polypropylene (column 5, lines 14-40) printed film (column 5, lines 57-66, column 9, lines 41-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the transfer mask of Reed et al. with the aluminum layer in the reflective article of Crandall. The motivation would have been to provide a selective demetallization mask which produces decorative effects in the article.

35. As to claim 13, Crandall discloses the transparent dielectric mirror is a layer of aluminum sodium fluoride (NaAlF₆) overlaid by a layer of zinc sulfide (ZnS; column 7, lines 4-15).

36. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,416,856 to Crandall in view of U.S. Patent No. 5,620,775 to LaPerre, U.S. Patent No. 5,514,441 to Pohto et al., U.S. Patent No. 6,416,188 to Shusta et al., and U.S. Patent No. 5,620,613 to Olsen as applied to claims 1-3, and 6 above, and further in view of U.S. Patent No. 6,592,700 to Wang et al.

37. With respect to claim 4, Crandall discloses the polyurethane resin is a reaction product of a polyether polyol having a number molecular weight of at least 2,000 and a polyisocyanate (See Abstract).

38. Wang et al. disclose a method of producing retro-reflective sheets, including polyester polyurethane polyols are functionally equivalent to polyether polyols when producing polyurethane resins (column 2, lines 48-50). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the art-recognized equivalent polyester polyol taught by Wang et al. for the polyether polyol disclosed by Crandall.

39. As to claim 7, Crandall discloses the polyurethane resin is a reaction product of a polyether polyol having a number molecular weight of at least 2,000 in solvent and a polyisocyanate (column 10, lines 16-32).

40. Wang et al. disclose a method of producing retro-reflective sheets, including polyester polyurethane polyols are functionally equivalent to polyether polyols and aromatic polyisocyanate is equivalent to isocyanate when producing polyurethane resins (column 2, lines 48-50; column 3, lines 30-37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the art-

recognized equivalent polyester polyurethane polyol and the aromatic isocyanate taught by Wang et al. for the polyether polyol and isocyanate disclosed by Crandall.

41. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,416,856 to Crandall in view of U.S. Patent No. 5,620,775 to LaPerre, U.S. Patent No. 5,514,441 to Pohto et al., U.S. Patent No. 6,416,188 to Shusta et al., U.S. Patent No. 6,355,302 to 5,620,613 to Olsen and further in view of U.S. Patent No. 6,592,700 to Wang et al. as applied to claim 4 above, and further in view of applicant's admitted prior art.

42. With respect to claim 5, Crandall does not disclose the dry polyurethane resin on the glass microspheres is less than about 3 g/sqm of dry substance.

43. Pohto et al. discloses the thickness of the space coat layer is determined as a function of the index of refraction and the average diameter of the microspheres and the index of refraction of the space coat (column 11, lines 10-13). Applicant's admitted prior art discloses it is known to use a polyurethane space coat with a thickness of less than about 3 g/sqm (page 5, lines 6-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the basis weight of 3 g/sqm of polyurethane resin, as disclosed by applicant in the method of Crandall. Pohto et al. discloses this value is determined by routine experimentation given certain parameters of the article. The motivation would have been to obtain the desired focal length of the article (Pohto et al.; column 1, lines 38-40). More particularly, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the

optimum or workable ranges by routine experimentation. In re Swain et al., 33 CCPA (Patents) 1250, 156 F.2d 239, 70 USPQ 412; Minnesota Mining and Mfg. Co. v. Coe, 69 App. D.C. 217, 99 F.2d 986, 38 USPQ 213; Allen et al. v. Coe, 77 App. D.C. 324, 135 F.2d 11, 57 USPQ 136.

Response to Arguments

44. Applicant's arguments filed 2/25/08 have been fully considered but they are not persuasive. Applicant's amendment necessitated the new grounds of rejection.

Applicant's remaining pertinent arguments are addressed below:

45. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Applicant's argument that Crandall and Olsen do not disclose depositing the aluminum layer onto the polyurethane resin are not persuasive, because Pohto, a secondary reference, is relied upon to teach forming the aluminum layer over the polyurethane spacing layer, not Crandall or Olsen.

46. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

47. Applicant suggests there is no reason to combine the teaching of the location of the polyurethane spacing layer in the article of Pohto with the retroreflective article of Crandall. It would have been obvious to one of ordinary skill in the art at the time the invention was made to applying the polyurethane resin prior to depositing the aluminum layer as taught by Pohto et al. in the method of making a retroreflective article disclosed by Crandall. The motivation would have been to provide the desired focal length between the beads and the reflective surface (column 1, lines 38-40). Focal length is an optical measure of how strongly a system focuses light. In retroreflective articles, the use of a spacer layer to control the focal length of the reflected light allows for the adjustment of the appearance of the final article. This feature is desirable in order to adequately control aesthetic qualities and light reflection of the article. Consequently, the motivation provided by Pohto to form the polyurethane layer prior to depositing the reflective aluminum layer in order to provide the appropriate focal length between the beads and reflective surface is considered proper.

48. Applicant is reminded one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Furthermore, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested

in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

49. As to applicant's arguments concerning independent claim 15, this claim is drawn to a separate species the previously examined claims 1-13. Therefore, claim 15 has been withdrawn from consideration.

Conclusion

50. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMBERLY K. MCCLELLAND whose telephone number

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is (571)272-2372. The examiner can normally be reached on 8:00 a.m.-5 p.m. Mon-Thr.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. K. M./
Examiner, Art Unit 1791

KKM

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791